

National Aeronautics and  
Space Administration  
**Headquarters**  
Washington, DC 20546-0001



January 11, 2007

Reply to Attn of:

SMD/Planetary Science Division

Dr. Lennard A. Fisk, Chair  
Space Studies Board  
National Research Council  
500 Fifth Street, NW  
Washington, DC 20001

Dear Dr. Fisk:

When the NASA Astrobiology Institute (NAI) was formed in 1998, it was intended to be an experiment in the management of research efforts aimed at broadening and transforming NASA's historical program in exobiology into the newly christened field of astrobiology—the study of the origin, evolution, and distribution of life in the universe. The creation of the NAI was considered an innovative approach to extend and broaden the multidisciplinary nature that had long characterized exobiology—requiring the formation of interdisciplinary teams that would address cross-cutting questions in novel ways which were deemed not practicable within the constraints of the existing grants program. The NAI was formed to produce the highest quality research results while ensuring the infusion of astrobiology objectives into NASA missions, to build a coherent astrobiology community, and to provide associated education and outreach efforts to enable public access and benefit from NASA-supported astrobiology research. Since its founding, the NAI has placed special emphasis on encouraging collaborative research among scientists and providing insights to educators from a variety of different backgrounds.

As a management experiment, the NAI was established as a "collaboratory" or "institute without walls," which was intended to stimulate cooperation and collaboration across the members' home-institutional and geographic boundaries. The NAI members were selected under a cooperative agreement notice that provided grants to institute members under a flexible format that allowed full participation across Government/non-Government lines. A central office, with an NAI Director, was established at NASA Ames Research Center and several rounds of competition were held over the years, resulting in today's 12 member institutions (from a peak of 16). At the time of the NAI's founding, it was envisioned that a decadal review would be held to examine the results of this management experiment in the context of NASA's overall space and Earth science responsibilities.

I would like to request that the Space Studies Board (SSB) conduct a review to evaluate the NAI's progress in developing the field of astrobiology, both from the perspective of NAI members and that of the larger community of NASA-supported scientists—both within the NASA Astrobiology Program and outside of it. It is hoped that the results of this review can help guide NASA in assessing and shaping the future of the NAI, particularly in its preparation of a solicitation that would be issued to help select future teams to carry the NAI into a second decade.

This review should evaluate the success of the NAI in achieving its stated goals of:

- Conducting, supporting, and catalyzing collaborative interdisciplinary research;
- Training the next generation of astrobiology researchers;

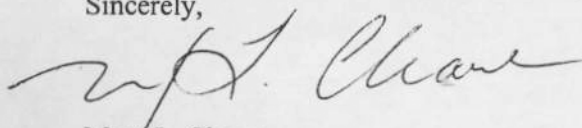
- Providing scientific and technical leadership on astrobiology investigations for current and future space missions;
- Exploring new approaches, using modern information technology, to conduct interdisciplinary and collaborative research amongst widely-distributed investigators; and
- Supporting outreach by providing scientific content for K-12 education programs, teaching undergraduate classes, and communicating directly with the public.

In evaluating the NAI's success, the SSB should address the following broad questions:

- Has the NAI developed, as envisioned, as an evolving experiment in cutting-edge, distributed, collaborative science and education in astrobiology?
- Does the NAI provide a unique and useful complement to other Astrobiology Program support mechanisms (e.g., individual grants to principal investigators), and if improvements need to be made in this area, what are they?
- Are the research, training, and public educational activities of the NAI appropriately balanced in terms of investments and outcomes, services to NAI members and external partners, and activities that engage and support the wider astrobiology community and the needs of young professionals?
- What other activities/roles not currently undertaken by the NAI might be appropriate in future?

I would like to request that the National Research Council submit a proposal for the execution of the proposed review. In order for the conclusions of the review to be available in sufficient time to be incorporated into the next-scheduled solicitation for NAI member-institutions, the final report of this review committee should be available no later than October 1, 2007. The technical point of contact for this activity will be Dr. John D. Rummel, who can be reached at 202-358-0702.

Sincerely,



Mary L. Cleave  
Associate Administrator for  
Science Mission Directorate

cc:

Science Mission Directorate/Dr. Hartman

- Dr. Hertz
- Mr. Allen
- Ms. Holland

SMD/Planetary Science Division/Dr. Green

- Dr. Rummel